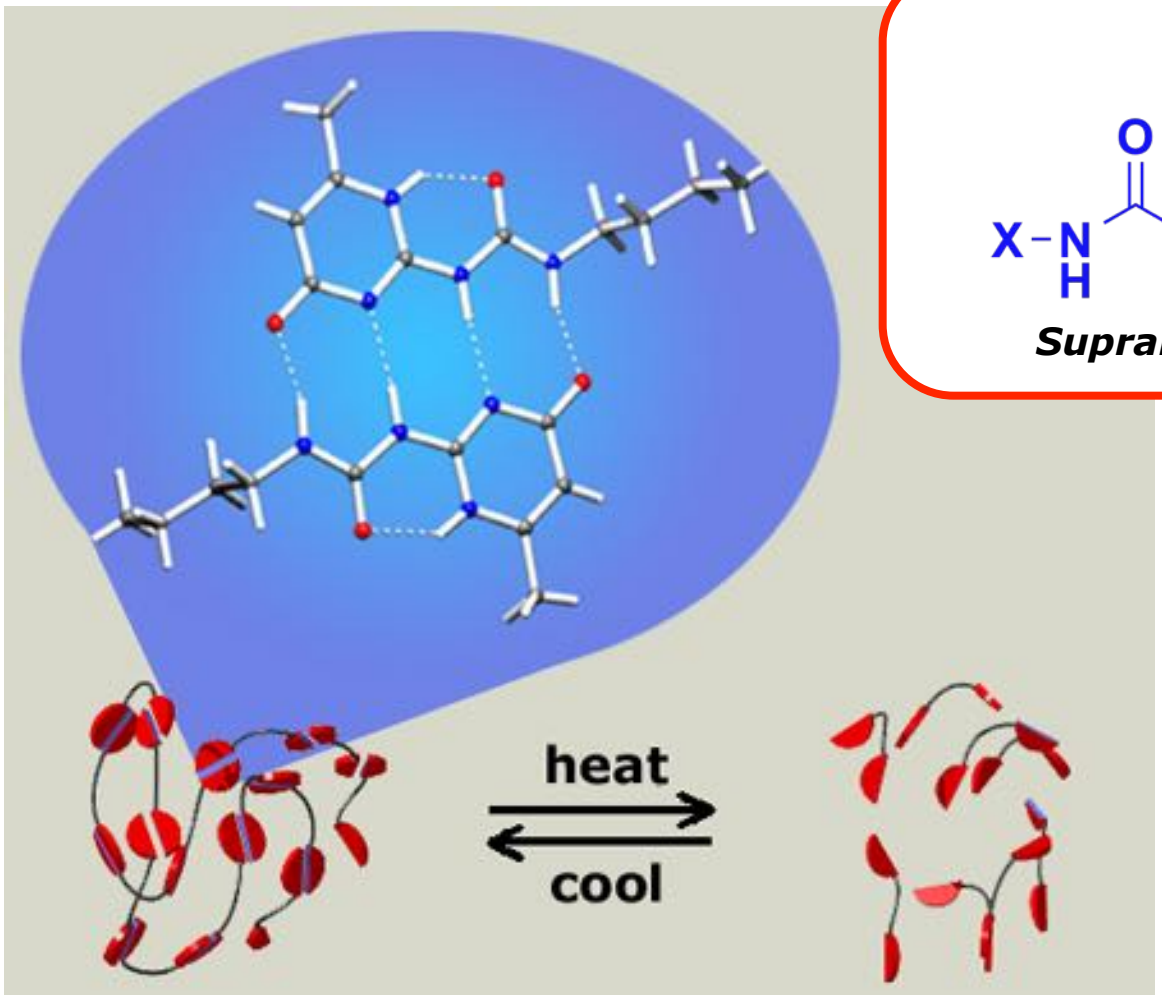
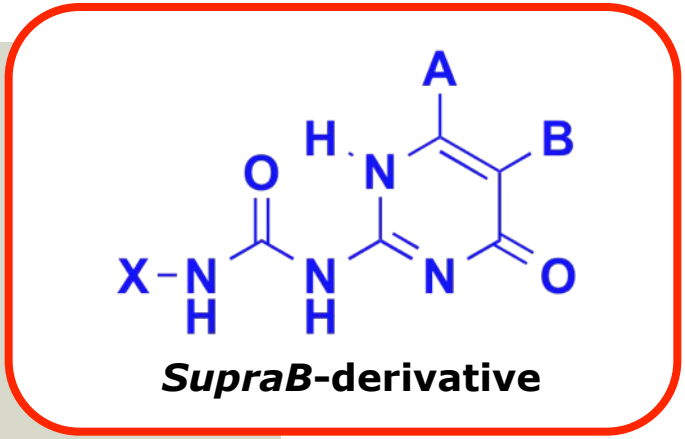
supramolecular polymers in action

SupraB™: unique supramolecular building block



Meijer and Sijbesma, 1996

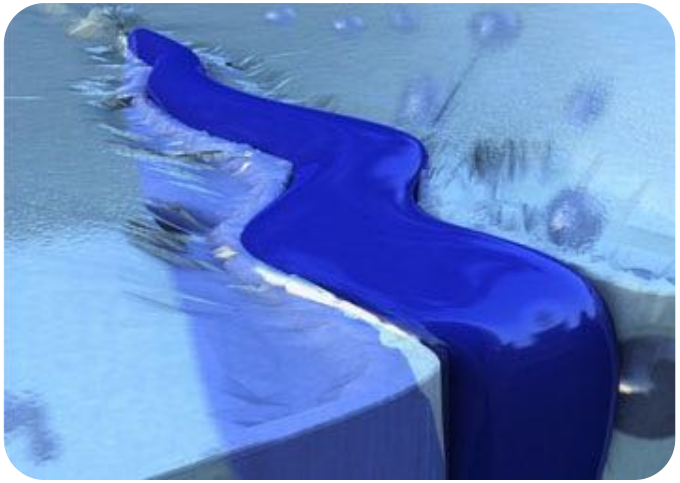


***SupraB*-derivative**

SupraB™: self-healing in action

Possible self-healing strategies:

1. monomer/catalyst reservoirs in material
2. temperature switchable flow
3. damage induced adhesion

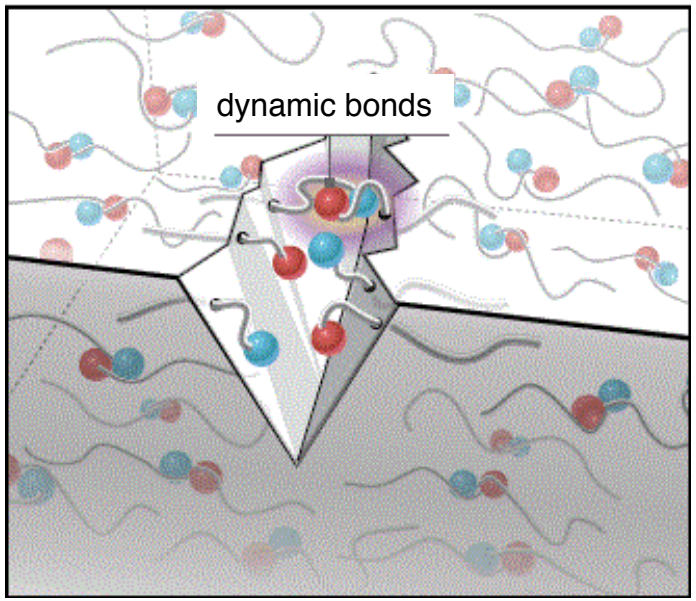


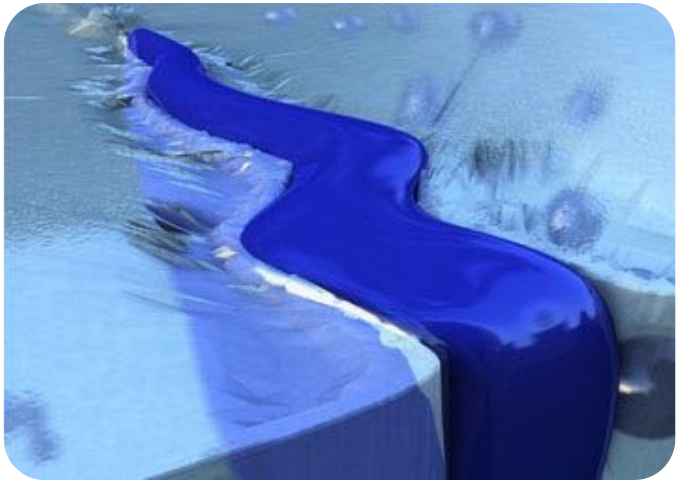
SupraB™: self-healing in action

***SupraB* self-healing strategies:**

1. ~~monomer/catalyst reservoirs in material~~
2. **temperature switchable flow**
3. **damage induced adhesion**

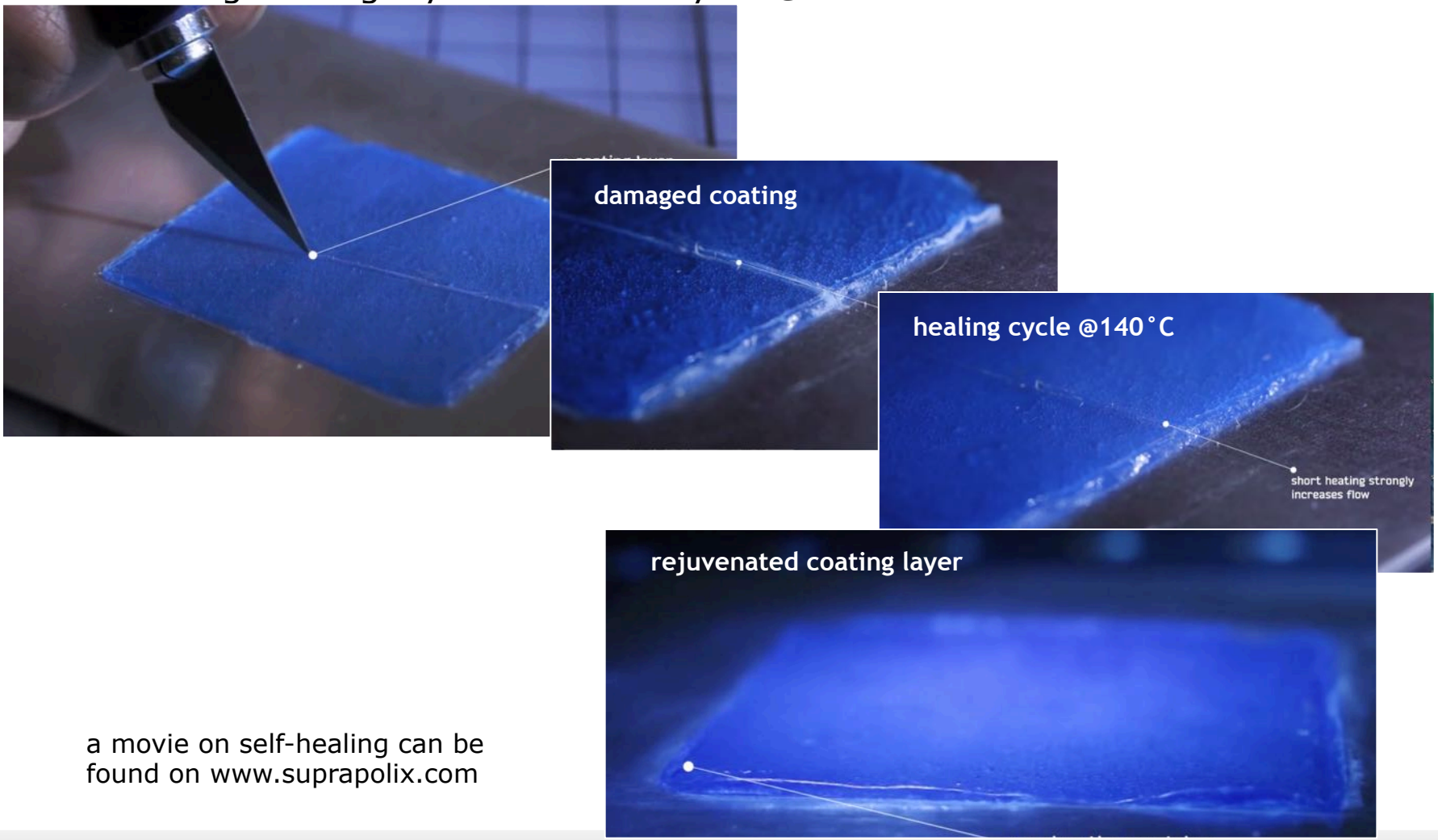
- **no** chemicals/catalysts/plasticizers
- intrinsic material property





SupraB™: self-healing coatings

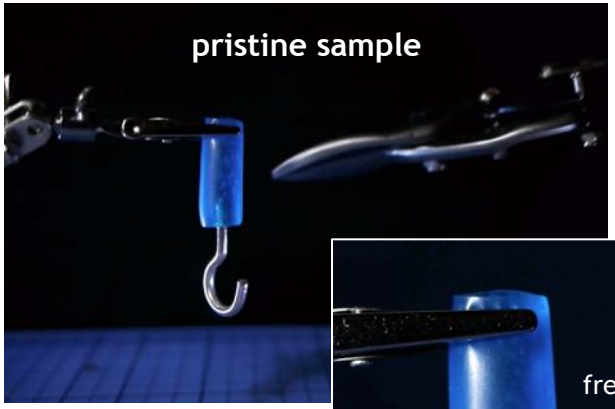
self-healing coating layer after heat cycle @140°C

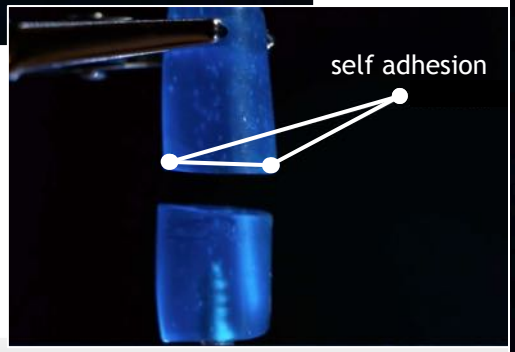


a movie on self-healing can be found on www.suprapolix.com

SupraB™: autonomous self-healing

- only freshly cut surfaces are adhesive and can be bonded again
- mechanical damage + pressure is trigger
- materials can be solution or melt-processed





a movie on self-healing can be found on www.suprapolix.com

SupraB™: a variety of self-healing grades

- *SupraB*-polymers are specialty TPU's
- processing is performed from the melt or solvent based formulations
- *SupraB*-polymers are transparent and can easily be colored with pigments or dyes
- hardness of self-healing *SupraB*-polymers range from Shore A50 to 75

SupraPolix: a young company

SupraPolix BV:

www.suprapolix.com

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The Netherlands

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